

Filling Critical Gaps through Innovative Cradle-to-Grave Training

U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy



2017 DOE Vehicle Technologies Office
Annual Merit Review and Peer Evaluation Meeting
June 8, 2017

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North Central Texas Council of Governments
Project ID: TI074

Overview

Timeline

- Start: June 15, 2015
- End: October 14, 2017
- ~50 percent complete^

Budget*

- Total Funding: \$750,000
 - Federal: \$600,000
 - Subrecipient Share:\$520,293
- Budget Period 1: \$315,245
 - Expended: \$211.183
- Budget Period 2: \$284,755
 - Expended: \$83,929

Barriers

- Primary: Lack of Technical Expertise
- Secondary: Consumer Reluctance

Subrecipient Partners

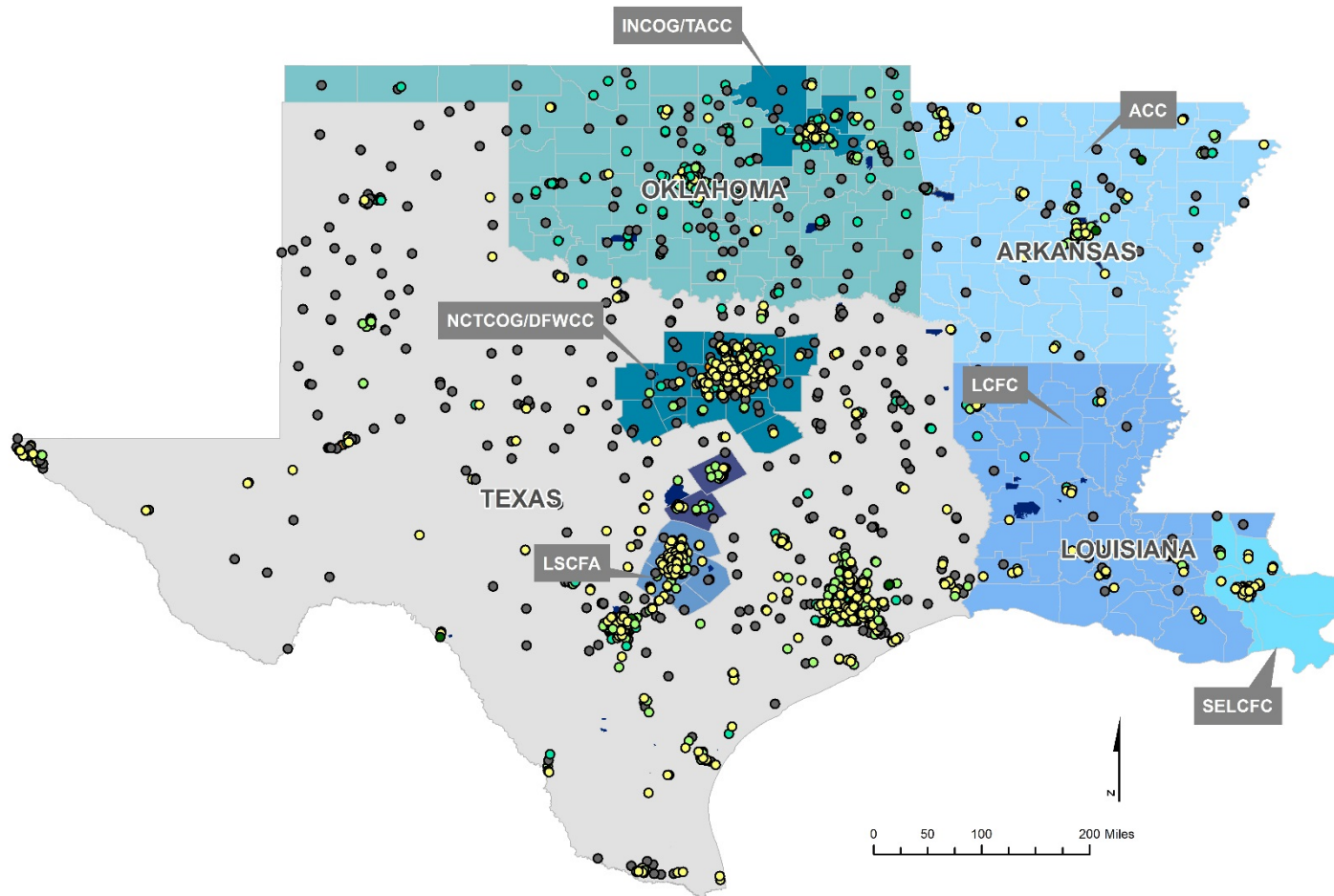
- Arkansas Energy Office
- Lone Star Clean Fuels Alliance
- Louisiana Clean Fuels
- National Alternative Fuels Training Consortium
- Regional Planning Organization
- Indian Nations Council of Governments

^As of April 7, 2017 (based on budget)

**As of September 30, 2016*

Project Objectives

The objective of this project is to enhance and provide training on alternative fuels and alternative fuel vehicles to reach mechanics/technicians, first responders, public safety officials, and other critical service providers across a multi-state region.



Project Objectives

GOALS

- Reduce US dependence on foreign oil, increase the viability and deployment of renewable energy technologies, and increase energy efficiency

BARRIERS

- Lack of technical expertise with new fuels and vehicle technologies
- Consumer reluctance to purchase new technologies

IMPACT

- Increase the number of professionals trained on AFVs
- Offer regular training on AFVs to ensure adequate support
- Improve technical knowledge to increase consumer confidence

Project Approach - SOPO

Task 1: Project Management and Administration

- Manage the cost, schedule, and scope of the project and provide status and progress to the Department of Energy in accordance with the deliverables section of this document
- Regular reporting and communications
- Development of Future Action Plan

Task 2: Expand Access to CNG Station Safety Training for Fire Marshalls and Code Inspectors

- Expand access to and increase regularity of CNG station safety training for fire marshals and code officials in order to deepen their understanding regarding CNG station

Project Approach - SOPO

Task 3: Expand Access to Alternative Fuel Technical Training

- Expand access to AFV training across the South Central Clean Cities region using materials previously developed in coordination with DOE and to broaden the knowledge base of vocational/community college instructors and institutions to include the relevant curricula in their regular course offerings

Task 4: Expand Access to First Responder Safety Training

- Establish training for first responders, public safety officials, and critical service providers using existing curricula in order to increase the number of service providers by offering AFV safety classes in cooperation with existing Freeway Incident Management classes

Project Approach – Uniqueness and Integration

Leverage curriculum developed through other DOE funding programs

- National Alternative Fuels Training Consortium
- FS Circle

Introduce curriculum to new organizations in the region

- Firefighter training organizations

Build on expertise of trainers

- Existing firefighter instructors

Capitalize on a pre-existing and captive audience

- Freeway Incident Management classes/attendees

Utilize Instructor Trainings to deliver End-User Trainings

Milestones

Year 1

Execute Subrecipient Agreements

Go/No-Go

Provide Training to Existing FIM Instructors

Technical

Initiate Fire Marshal and Code Official Training

Administrative

Initiate Instructor Training

Administrative

Year 2

Host Fire Marshal and Code Official Training

Technical

Host End-User AFV Training

Technical

Host First Responder Safety Training

Technical

Complete Instructor Training

Technical

Develop Future Action Plan

Technical

Project Accomplishments and Progress

17 Total Classes Held

First Responder: 6

CNG Station Safety: 5

CNG Fuel System
Inspector: 3

Mechanic/Technician: 3
(one each Electric
Drive, Propane, Natural
Gas)

251 Total Attendees

First Responder
Personnel and Trainers:
91

Mechanics/Technicians
(Fuel-specific or CNG
Fuel Systems): 52

Station Safety
Personnel: 108

22 Training Organizations

Colleges: 7

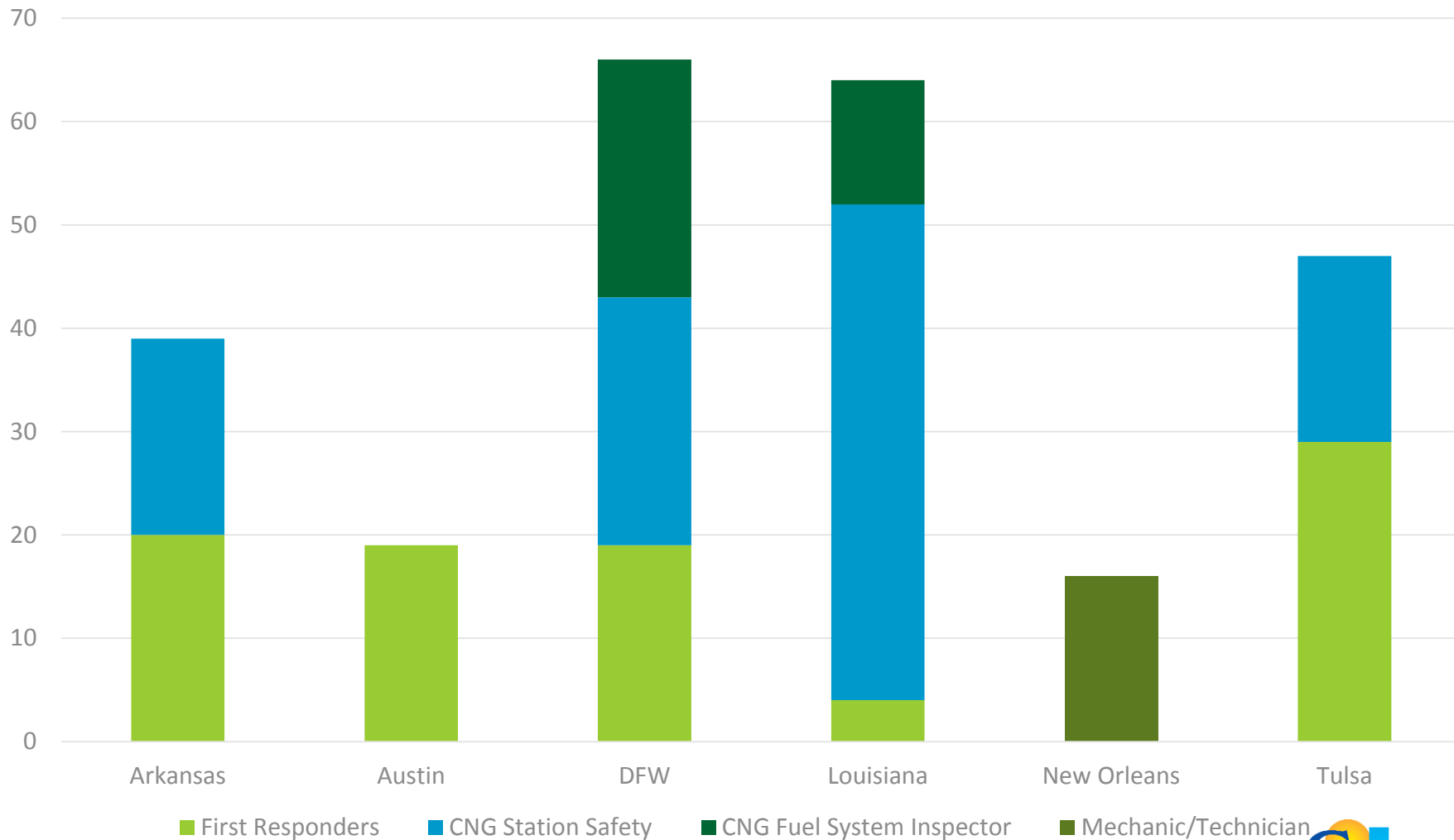
Municipalities: 7

Other Partner
Organizations: 8



Project Accomplishments and Progress

Training Attendance*



*As of April 10, 2017

Collaboration & Coordination Among Project Team

Training Partners



Host Facilities



DALLAS
FORT WORTH
INTERNATIONAL
AIRPORT



Clean Cities Coalitions



U.S. Department of Energy

Collaboration & Coordination Among Project Team

NCTCOG/DFWCC (Prime)

NAFTC

Tulsa Area Clean
Cities (FS Circle)

Clean Cities
Coalitions

Training Providers (NAFTC and TACC)

Schedule trainings
with individual
coalitions

Provides
trainer/materials

Clean Cities Coalitions

Work with training
provider

Secure training
location

Advertise and
solicit attendees

Host trainings in
coalition area

Collaboration & Coordination Among Project Team

Technical Colleges/Universities

- Austin Community College
- Baton Rouge Community College
- Delgado Community College
- Oklahoma City Community College Professional Development Institute
- Texas State Technical College
- Universal Technical Institute
- University of Texas at Arlington

Local Governments

- City of Dallas
- Town of Addison
- DFW International Airport
- Port of New Orleans
- City of Kenner
- Louisiana State Fire Marshall
- Association of Central Oklahoma Governments

Clean Cities
Coalitions

Vehicle Providers

- Nissan
- KC Landscape & Irrigation
- NGV Texas
- Westport
- NAFTC Mobile Training Unit

Other Partners

- Austin Area Tow Drivers Association
- Corporation for National and Community Service - Tulsa
- Fire Instructors Association of North Texas

Market Impact and Sustainability

Remaining Project Activities

- Host remaining grant-funded training classes (13 total)
- Initiate Instructor-led trainings at partner organizations
 - Sign-up local organization as NAFTC members
 - Leverage existing NAFTC partners
 - Coordinate with local fire departments to offer trainings
- Send out and compile attendee surveys/evaluations
- Develop Future Action Plan

Related Activities

- CNG/LNG Code Compliance workshops
 - 5 workshops across the State of Texas (March – November 2016)
 - Hosted by S3 Services
 - Fire marshals, code compliance officers, public and private fleet managers

Any proposed future work is subject to change based on funding levels.

Market Impact and Sustainability

Sustainability Beyond Performance Period

- Instructors that have attended the train-the-trainer trainings are encouraged to implement their own training plan and teach their own staff, thus broadening the project impact
- Provide partner organizations and potential stakeholders about the benefits of joining the a NAFTC National Training Center
- Community/technical College coordination and partnership to educate the next workforce about AFVs and potential employment opportunities
- Provide first responder academies with AFV education materials prior to first responders graduation and entering the workforce

How it Could be Replicated

- Work with instructors that have attended the trainings to implement their own trainings in their respective boundaries
- Clean Cities Coalition networking to provide how a successful training schedule can be created
- Utilize guidance developed in Future Action Plan

Any proposed future work is subject to change based on funding levels.



U.S. Department of Energy

Summary

Relevance:

- Addressing stakeholder technical needs by providing more frequent, cost-effective training
- Raising awareness of AFVs with target audience, particularly first responders
- Reducing anxiety of performing in-house maintenance

Approach

- Leveraging existing curriculum
- Building on current stakeholder relationships and creating new partnerships with colleges and training centers
- Train-the-Trainer to deliver additional classes beyond the life of the project

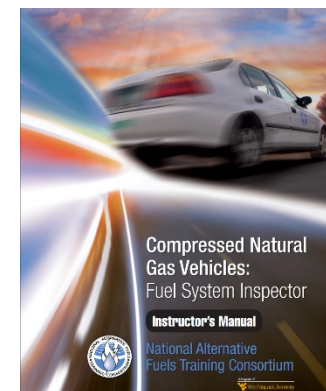
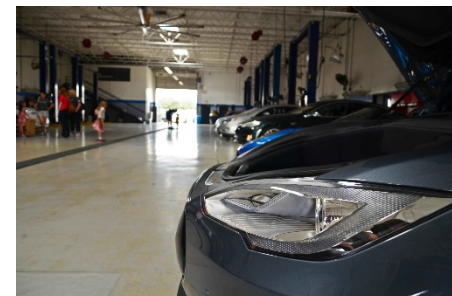
Collaborations

- Local governments (fire departments, code officials, fleets, etc.)
- Community/vocational colleges
- Training Centers

Project Accomplishment

- Nearly 20 classes held with over 250 attendees
- Future Action Plan will guide continued work and provide for replicability

Any proposed future work is subject to change based on funding levels.



U.S. Department of Energy

TECHNICAL BACK-UP

Technical Back-Up

Sample Attendee Evaluation Responses

